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STUDENT ATTITUDES AND MOTIVATION IN RELATION TO ABILITY  
GROUPING.

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APPROXIMATELY 180 EIGHTH- AND 180 NINTH-GRADE STUDENTS,  
PLACED IN THREE ABILITY "TRACKS," WERE ADMINISTERED AN  
80-ITEM ATTITUDE SURVEY AND AN 80-ITEM MOTIVATION INVENTORY.  
THE RESULTS OBTAINED WERE DEVELOPED AS PART OF A LONG-RANGE  
STUDY TO IMPROVE SCHOOL ATTITUDES AND MOTIVATION THROUGH  
INCORPORATING A REVISION OF INSTRUCTIONAL AND GROUPING  
PRACTICES IN SOCIAL STUDIES. THE ATTITUDE INVENTORY ITEMS  
WERE FACTOR ANALYZED AND ARRANGED IN SEVEN CLUSTERS. THE  
SCORES FOR EACH OF THE ATTITUDE FACTORS AND THE MOTIVATION  
SCORE WERE ANALYZED FOR RELATIONSHIPS AND VARIANCE. RESULTS  
FROM THIS ANALYSIS PLUS OTHER SUPPORTING EVIDENCE SHOWED THAT  
BRIGHTER STUDENTS HAD LOWER MOTIVATIONAL SCORES THAN THE  
STUDENTS PLACED IN THE LOWER ABILITY GROUPINGS. AN  
EXPERIMENTAL PROGRAM USING TEAM TEACHING AND A FLEXIBLE  
GROUPING ARRANGEMENT RESULTED IN A RELATIONSHIP CHANGE  
BETWEEN THE TOTAL ATTITUDE SCALE SCORE AND MOTIVATION. A  
SIGNIFICANT AND POSITIVE, POST-EXPERIMENTAL RELATIONSHIP  
BETWEEN THE MOTIVATION INDEX AND THE ATTITUDE TOTAL SCORE WAS  
IN CONTRAST TO THE PRE-EXPERIMENTAL RELATIONSHIP. IMPROVED  
ATTITUDES OF THE EXPERIMENTAL GROUP ARE SHOWN FOR THREE  
VARIABLES. THE VARIED GROUPING OF THE EXPERIMENTAL PROGRAM  
OFFERED A BROADER BASE FOR STUDENT INTERRELATIONSHIPS. THIS  
REPORT WAS PREPARED FOR PRESENTATION TO THE 1967 AMERICAN  
PERSONNEL AND GUIDANCE ASSOCIATION CONVENTION (DALLAS, MARCH  
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**STUDENT ATTITUDES AND MOTIVATION IN  
RELATION TO ABILITY GROUPING \***

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Ability grouping in education has been assumed to be an effective and efficient way to separate students for school instruction. Guidance counselors, teachers and school psychologists have played a cooperative role in the selection and placement of students in ability groups for educational reasons. Achievement, aptitude and intelligence test performance as well as teachers judgements have been used for ability placement with little or no evaluation of the personal and educational effects of ability grouping. There has been little evidence reported to show that students grouped according to ability become better informed or make gains in understanding, motivation or improved attitudes. Assessment procedures used to study the performance of ability grouped students have traditionally included mainly standard achievement tests and teacher judgement.

This report compares the results of an attitude and motivation survey of junior high school students according to ability group placement. Approximately 180 eighth and 180 ninth grade students, who were placed in three ability "tracks" were administered and 80 item attitude survey developed by Zweibelson (1964) and an 80 item motivation inventory developed by Frymier (1962). It was hypothesized that student attitudes and motivation would differ for each ability group.

The results obtained for the present paper were developed as part of a long range study to improve school attitudes and motivation, incorporating a revision of instructional and grouping practice in social studies. (A report of the major study entitled "Improving School Attitudes and Motivation by Team Teaching and Flexible Grouping" by Zweibelson, (1967) presently in mimeographed form, is being prepared for publication.

The attitude inventory items were factor analyzed (Zweibelson, et al., 1965) and arranged in the seven clusters listed below:

1. Group-School attitudes
2. Social studies attitudes
3. Personal attitudes
4. Bias toward students
5. Student-School Relationships
6. Resistance to learning and change
7. Social Resistance

The scores for each of the attitude factors and the motivation score were analyzed for relationships and variance. The results presented in Tables 1-4 are for 8th grade students--substantially equivalent findings are available for the ninth grade population.

Analyses of the relationships for 8 scores (7 attitude, 1 motivation score) compared with ability group

placement, are shown in Table 1. These results were obtained before exposure to a modified instructional program in the form of team teaching. Table 1 shows a highly significant correlation between student group placement and motivation score. There was a negative relationship between track placement and motivation. A summary statement of this relationship, evidenced by the  $-.35$  correlation, could be stated in this way - the brighter students (placed in the high ability groupings) tended to have lower motivation scores than the students placed in the lower ability groupings. These results seem to be at odds with traditional educational expectations that ability grouping encourages the motivation of high ability students. It is possible that higher ability students expressed their negative attitudes more readily. It was also true that students in high ability groups or tracks tended to have more negative group-school attitudes than students in lower ability groups.

There was little change in the basic relationships among, ability grouping, motivation, and the seven attitude scores, after exposure to the experimental program (see Tables 2 and 4). A change in relationship for the total attitude scale score and motivation is evident (Table 4).

This finding indicates a significant and positive relationship between the motivation index and the post-attitude total score, compared with the pre-experimental absence of relationship.

Analyses of the 8 variables under discussion (shown in Table 3) shows highly significant differences between ability groups for 6 of the 8 variables, namely:

- Group School Attitudes
- Social Studies-School Attitudes
- Personal Attitudes
- Resistance to Learning and Change
- Social Resistance
- Motivation.

These results provide supporting evidence that ability grouping may have affected the attitudes and motivation of the higher ability students. The higher ability students tended to have lower attitude and motivation scores. It is also noteworthy that the students scores on both the motivation and the attitude scales were similar in direction.

Table 3 shows evidence of improved attitudes of the experimental group for the following three variables:

- Social Studies - School Attitudes
- School-Student Relationships
- Social Resistance.

The advantage of the team teaching approach combined with a flexible grouping arrangement may well have encouraged the changes in attitudes indicated above. It should

be pointed out that the flexibility of the grouping arrangement in team teaching allowed for some ability grouping during part of the program and added the advantages of homogeneous grouping at other times. The varied grouping of the experimental program appeared to offer a broader base for student interrelationships.

It seems likely that ability grouping creates more tension or pressure for the able student and that a negative attitude or lowered motivation could result. Ability placement apparently affects the opinions of students in regard to groups within the school, as well as toward the school itself.



Table 1  
INTERCORRELATIONS, MEANS AND STANDARD DEVIATIONS OF SEVEN PRE ATTITUDE  
FACTORS WITH MOTIVATION SCORE AND TRACKS FOR 8TH GRADE TEAM TAUGHT GROUP  
(Class of '69) (N=184)

Factor	1	2	3	4	5	6	7	Track	Motiv.
(Motivation)	07	10	-14	-03	-05	04	-01	-35/	
(Tracks)	-56/	-10	-11	-05	-07	-48/	-32/		
7	55/	24**	01	26**	21*	30/			
6	54/	17	20*	22*	25**				
5	29**	10	14	21					
4	26**	32/	10						
3	05	-11							
2	32/								
1									

Mean	28.3	73.7	52.1	69.4	52.1	48.0	49.5	2.2	197
S.D.	4.0	16.4	7.6	14	7.9	9.3	7.7	.8	16.6

Table 2  
INTERCORRELATIONS, MEANS AND STANDARD DEVIATIONS OF SEVEN POST ATTITUDE  
FACTORS WITH MOTIVATION SCORE AND TRACKS FOR 8TH GRADE TEAM TAUGHT GROUP  
(Class of '69) (N=184)

Factor	1	2	3	4	5	6	7	Track	Motiv.
(Motivation)	20*	19*	14	-05	10	18	15	-36/	
(Tracks)	-43/	-18	-24**	10	-15	-41**	-26**		
7	43/	13	16	14	19*	28**			
6	54/	05	17	06	30**				
5	29**	17	11	20*					
4	13	08	04						
3	17	11							
2	32**								
1									

Mean	29.4	62	54	64	52	51	49	2.2	197
S.D.	3.6	16.0	7.7	13.4	8.6	9.1	8.3	.8	16.7

Note: Decimal Points Omitted \* Significant at .05- \*\*Significant at .01- / Significant at .001



Table 3

Analyses of Variance of Control Versus Experimental  
Group for 8 Score Variables, 8th Grade, Class of '69  
(Control N=180, Experimental N=180)

Source of Variation	Degree of Freed	Mean Square	F	Degree of Freed	Mean Square	F
1. GROUP-SCHOOL ATTITUDES				5. SCHOOL-STUDENT RELATIONSHIPS		
Between Groups						
Team Control	1	1868.9	1.9	1	542.2	7.5**
Track Plcmt	2	45529.1	45.4**	2	98.0	1.4
Interaction	2	3344.4	3.3	2	70.4	0.4
Within Grps.	354	1002.7		354	73.5	
Total	359	1317.7		359		
2. SOCIAL STUDIES-SCHOOL ATTITUDES				6. RESISTANCE TO LEARNING AND CHANGE		
Between Groups						
Team Control	1	750.3	3.2*	1	16.0	.2
Track Plcmt.	2	2843.2	12.2**	2	2477.0	36.5**
Interaction	2	540.3	2.3	2	126.1	1.9
Within Grps.	354	234.7		354	67.8	
Total	359	256.4		359	83.1	
3. PERSONAL ATTITUDES				7. SOCIAL RESISTANCE		
Between Groups						
Team Control	1	34.0	.6	1	616.3	10.0**
Track Plcmt.	2	561.2	10.0**	2	925.4	15.0**
Interaction	2	171.1	3.0*	2	109.0	1.8
Within Grps.	354	56.3		354	62.0	
Total	359	59.8		359	69.5	
4. BIAS TOWARD STUDENTS				8. MOTIVATION		
Between Groups						
Team Control	1	156.1	.9	1	82.9	.36
Track Plcmt.	2	383.2	2.1	2	6553.3	28.12**
Interaction	2	403.2	2.3	2	664.0	2.85
Within Grps.	354	178.3		354	233.0	
Total	359			359		

Table 4

Intercorrelations, Means and Standard Deviations of the  
Total Pre- and Post- Attitude Scores with Motivation and  
Tracks For 8th Grade Team Taught Group (Class of '69) (N=184)

	Motivation	Pre-Attitude Total	Post-Attitude Tot.	Tracks
Tracks	-.36*	-.51*	-.40*	
Post-Total	.21*	.24**		
Pre-Total	.00			
Motivation				
Mean	197.3	129.7	133.5	2.2
S.D.	16.7	12.3	11.0	.8

Note: Decimal Point Omitted

\* Significant at .05 \*\* Significant at .01 / Significant at .001

### REFERENCES

Frymier, Jack, R. Assessing Junior High School Students Motivation, The High School Journal, 1962.

Goldberg, Miriam L., and Passow, A. Harry. The Effects of Ability Grouping. Education. 1962.

Zweibelson, I. Bahnmuller, M., Lyman, L. Team Teaching and Flexible Grouping in the Junior High School Social Studies. The Journal of Experimental Education. 34: 1, 1965.